Amendments to the Claims:

Please amend claims 18 through 24 and 34 through 39 herein. Please note that all claims currently pending and under consideration in the above-referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-17 (Canceled)

18. (Currently amended) A method of forming an electrical structure on a substrate, the method comprising:

performing a plasma doping (PLAD) operation to form a first doped region in a substrate; and

performing a second doping operation, the second doping operation comprising depositing dopants in the first doped region and in a second doped region that is contiguous with and extends below the first doped region, wherein the first doped region has a higher dopant concentration than the second doped region, the second doped region having a lower periphery that is substantially planar and substantially parallel to a top surface of the substrate.

19. (Currently amended) ~~A~~ The method as defined in claim 18, wherein performing a PLAD operation to form a first doped region in a substrate comprises performing the PLAD operation to form the first doped region having a dopant concentration that terminates relatively abruptly at an uneven lower periphery.

20. (Currently amended) ~~A~~ The method as defined in claim 18, wherein:

performing a PLAD operation to form a first doped region in a substrate comprises forming the first doped region having a lower periphery at a depth of less than about 1000 Å; and

performing a second doping operation comprises forming the second doped region having a lower periphery at a depth that is less than about 1750 Å from a top surface of the substrate and at least about 250 Å greater than the depth of the lower periphery of the first doped region.

21. (Currently amended) ~~A~~ The method as defined in claim 18, further comprising annealing the substrate after at least one of the second doping operation and the PLAD operation to cause a more uniform distribution of dopants.

22. (Currently amended) ~~A~~ The method as defined in claim 21, wherein annealing the substrate comprises rapid thermal annealing of the substrate.

23. (Currently amended) ~~A~~ The method as defined in claim 18, wherein:

performing a PLAD operation to form a first doped region in a substrate comprises conducting the PLAD operation at an energy in a range of from about 5 KeV to about 15 KeV such that the first doped region has a dopant concentration in a range of from about 1×10^{19} dopant atoms/cm^3 to about 5×10^{21} dopant atoms/cm^3; and

performing a second doping operation comprises performing the second doping operation at an energy in a range of from about 10 KeV to about 25 KeV such that the second doped region has a dopant concentration in a range of from about 1×10^{16} dopant atoms/cm^3 to about 1×10^{19} dopant atoms/cm^3, the second doping operation being conducted in a medium power implanter operating in a range of from about 0 KeV to about 200 KeV.

24. (Currently amended) ~~A~~ The method as defined in claim 18, ~~wherein the first doped region and the second doped region form~~ further comprising forming a portion of an electrical device that is selected from the group consisting of a diode, a resistor, and a transistor with the first doped region and the second doped region.

Claims 25-32 (Canceled)

33. (Previously presented) A method of forming an electrical structure on a substrate, the method comprising:

providing a gate region over a substrate, the gate region having a bottom surface;

performing a plasma doping (PLAD) operation to form a first doped region in the substrate, wherein the first doped region does not underlap the bottom surface of the gate region; and

performing a second doping operation, the second doping operation comprising depositing dopants in the first doped region and in a second doped region that is contiguous with and extends below the first doped region, wherein the first doped region has a higher dopant concentration than the second doped region, the second doped region having at least a portion thereof that underlaps the bottom surface of the gate region.

34. (Currently amended) ~~A~~ The method as defined in claim 33, wherein performing a PLAD operation to form a first doped region in the substrate comprises forming the first doped region having a dopant concentration that terminates relatively abruptly at an uneven lower periphery.

35. (Currently amended) ~~A~~ The method as defined in claim 33, wherein:

performing a PLAD operation to form a first doped region in the substrate comprises forming the first doped region having a lower periphery at a depth of less than about 1000 Å; and

performing a second doping operation comprises forming the second doped region having a lower periphery at a depth that is less than about 1750 Å from a top surface of the substrate and at least about 250 Å greater than the depth of the lower periphery of the first doped region.

36. (Currently amended) ~~A~~ The method as defined in claim 33, further comprising annealing the substrate after at least one of the second doping operation and the PLAD operation to cause a more uniform distribution of dopant.

37. (Currently amended) ~~A~~ The method as defined in claim 36, wherein annealing the substrate comprises performing the annealing as a rapid thermal anneal.

38. (Currently amended) ~~A~~ The method as defined in claim 33, wherein:

performing a PLAD operation to form a first doped region in the substrate comprises conducting the PLAD operation at an energy in a range of from about 5 KeV to about 15 KeV such that the first doped region has a dopant concentration in a range of from about 1×10^{19} dopant atoms/cm^3 to about 5×10^{21} dopant atoms/cm^3; and

performing a second doping operation comprises performing the second doping operation at an energy in a range of from about 10 KeV to about 25 KeV such that the second doped region has a dopant concentration in a range of from about 1×10^{16} dopant atoms/cm^3 to about 1×10^{19} dopant atoms/cm^3, the second doping operation being conducted in a medium power implanter operating in a range from about 0 KeV to about 200 KeV.

39. (Currently amended) ~~A~~ The method as defined in claim 33, ~~wherein the first doped region and the second doped region form~~ further comprising forming a portion of an electrical device that is selected from the group consisting of a diode, a resistor, and a transistor from the first doped region and the second doped region.

Claims 40-47 (Canceled)